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10/776,166	02/12/2004	Bart Gerard Boucherie	BOUC3015/JEK	3778

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EXAMINER

KARLS, SHAY LYNN

ART UNIT	PAPER NUMBER
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1744

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/776,166

Applicant(s)

BOUCHERIE, BART GERARD

Examiner

Shay L. Karls

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/31/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 21-25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 5/31/06.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 12-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Weihrauch (USPN 5176427).

Weihrauch teaches a method for manufacturing brushes, whereby bundles of fibers (9) are provided in a brush body (10). The far ends of the fibers are subjected to a processing (1) by bringing them into contact with processing equipment. The fibers and the processing equipment are mutually put into contact while the fibers are held together loosely (figures 5a-5c).

With regards to claim 3, the fibers are held together in a holder (7).

With regards to claim 4, the fibers are simply placed in a holder (col. 6, lines 50-56).

With regards to claim 12, the method for manufacturing brushes is used for rounding off the far ends of the fibers (figures 5a-5c).

With regards to claim 13, a grinding tool is used a processing equipment (1 and 3).

With regards to claim 14, the method is used for making toothbrushes (col. 1, line 21).

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With regards to claim 16, the fiber bundles are attached to a holder (carrier) and which is attached to a brush body (brush) and the fiber bundles are then end rounded directly from the holder (col. 6, lines 53-56).

Claims 1, 3, 4, 12-15 and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Boucherie (USPN 5728408).

Boucherie teaches a method for manufacturing brushes, whereby bundles of fibers (not labeled in figure 9, but labeled in other figures as element 54) are provided in a brush body (84). The far ends of the fibers are subjected to a processing (86, 88) by bringing them into contact with processing equipment. The fibers and the processing equipment are mutually put into contact while the fibers are held together loosely (figure 9).

With regards to claim 3, the fibers are held together in a holder (80).

With regards to claim 4, the fibers are simply placed in a holder (the fibers are guided into the holder as it rotates).

With regards to claim 12, the method for manufacturing brushes is used for rounding off the far ends of the fibers (86).

With regards to claim 13, a grinding tool is used a processing equipment (86, col. 7, lines 20-26).

With regards to claim 14, the method is used for making toothbrushes (col. 1, line 11).

With regards to claim 15, a pusher (not labeled but shown by arrow in figure 9 near reference number 84) is used in combination with a holder (80) for pushing the fibers in a longitudinal direction. The applicant does not specify what the longitudinal direction is in

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reference to, so the examiner is interpreting the longitudinal direction to be the longitudinal direction of the apparatus from reference number 84 to 88.

With regards to claim 17, bundle of fibers are separated from a fiber stock (84) by means of a holder and temporarily remain in the holder to be processed subsequently.

With regards to claim 18, the holder is a rotating bundle remover (80) and has a plurality of take up openings (82) for receiving fiber bundles.

With regards to claim 19, the take-up openings are partly filled in the holder. Figure 9 shows all but three openings filled.

With regards to claim 20, the processed fiber bundles are released into a cartridge (51).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 5-6, 8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weihrauch (USPN 5176427).

Weihrauch teaches all the essential elements of the claimed invention including that the end rounder (1) moves downward (6) to further round the ends of the bristles (figures 5a-5c). Weihrauch fails to teach having the processing equipment begin with a smaller freedom of movement and then enlarge as time progresses (claim 2, 5, 6, 8, 10). Even though Weihrauch fails to teach the freedom of movement of the bristles is increasing, Weihrauch's invention clearly does this. As shown in figure 5a, first the free ends are at their longest with the most amount of movement. In figure 5b, the abrader starts to move downward causing the free ends to have a smaller freedom of movement and then in figure 5c, the abrader is at its lowest with the smallest amount of freedom of movement for the fibers ends. After figures 5a-5c are completed the abrader must be moved back to its original position in order to remove the bristles from the processing equipment. Therefore, the abrader will then move upward until the bristles have the most freedom of movement as shown in figure 5a. This process of getting the abrader back to its original process reads on the claimed invention (claims 2, 5 and 10). When the abrader is moving upward, the distance between the abrader and the side of the holder that the fibers protrude from, is increased also (claims 6 and 8). Therefore, while Weihrauch fails to explicitly state that the abrader is moved so that the spacing is increased between the holder and the abrader and that the freedom of movement of the fibers is increased, it is obvious to one of ordinary skill in the art at the time the invention was made that after the abrader moves downward (figure 5a-5c), the abrader must again move upward (5c-5a). It is inherent that it must move upward after figure 5a-5c, so that after the processing is completed, the end rounded fibers can be removed and a new fiber bundles can be inserted.

Claims 2, 5-6, 8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucherie ('408) as applied to claim 1 above and further in view of Zahoransky ('484).

Boucherie teaches all the essential elements of the claimed invention however fails to teach the exact type of end rounding device, one that is adjusts the free length of the fibers, that is used in claims 2, 5-6, 8 and 10. Zahoransky teaches an end-rounding device wherein the free projecting length of the fiber bundle can be adjusted (col. 4, lines 5-15). Zahoransky fails to teach having the processing equipment begin with a smaller freedom of movement and then enlarge as time progresses (claim 2, 5, 6, 8, 10). Zahoransky teaches that the fiber length beyond the holder is adjustable but does not teach the method of having the fiber length increase with time (claims 2, 5 and 10). '484 also teaches that while the length of the fibers increase, so does the distance between the abrader and the side of the holder from while the fiber protrude (claims 6 and 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Zahoransky so that the fibers start out with a small amount of freedom when in contact with the abrader and gradually increase to a fiber length where the fibers have the most amount of freedom of movement. Zahoransky teaches that the deflection of the fiber length will determine the result of the rounded off ends (col. 4, lines 14-15). Therefore, adjusting Zahoransky's length so that it achieves the claimed invention would allow the fibers to be rounded in the claimed manner. Since the prior art's invention is capable of performing the method as claimed, and is therefore capable of rounding the fibers as claimed, the claimed invention is not patentably distinct from the prior art. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the modified end rounder of Zahoransky for the end rounder as taught by Boucherie because both references

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teach equivalent apparatuses. Both end rounders perform the same function of rounding fibers and therefore are considered interchangeable. Since Boucherie is silent as to what type of end rounder is used, Zahoransky's end rounder could be used in place of Boucherie's to allow different types of end rounding to occur due to the fiber length adjustment of Zahoransky.

Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weihrauch ('427) or Boucherie ('408) in view of Zahoransky ('484) as applied to claims 5 and 8, respectively above.

Weihrauch or Boucherie in view of Zahoransky teach all the essential elements of the claimed invention however fail to teach that the free length of the fiber is smaller than 1 millimeter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Weihrauch or Boucherie in view of Zahoransky so that the length of the fiber is less than 1 millimeter as stated in claims 7 and 9, since the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device. A method with a device having the claimed relative dimensions would not perform differently than the prior art device and therefore, the method and the claimed device is not patentable distinct from the prior art (MPEP 2144).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weihrauch ('427) or Zahoransky et al. ('484) as applied to claim 5 above and further in view of Boucherie (USPN 6290303).

Weihrauch and Zahoransky teach all the essential elements of the claimed invention however fail to teach that a push-out element is used to change the free length of the fibers. Boucherie teaches using a push-out element (24) for changing the free length of bristles (4). It

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would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Weihrauch or Zahoransky so that there is a push-out element is used as taught by Boucherie for pushing the fibers bundles into the holder so that various fiber bundle arrangement can be obtained, such as angled bristles or bristles of various lengths (col. 5, lines 29-41).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6837548 in view of Weihrauch ('427).

Although the conflicting claims are not identical, they are not patentably distinct from each other because '548 teaches all the elements of the claim (brush body and processing means) however fails to teach that the fibers are held loosely in the brush body. Weihrauch ('427), as stated above, teaches holding fibers together loosely and applying a process to the ends. It would have been obvious to modify the brush body of '548 so that it loosely holds the fibers as taught

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by Weihrauch since it considered to be well known in the art to apply a process to fiber ends when they are loosely held in a body.

Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6406099 in view of Weihrauch ('427).

Although the conflicting claims are not identical, they are not patentably distinct from each other because '099 teaches a bundle of fibers provided in a brush body (lines 4-6 of claim 1). The ends of the fibers are subjected to a processing by bringing them into contact with processing equipment (the ends of the fibers are brought into contact with a heated punch). '548 teaches all the elements of the claim however fails to teach that the fibers are held loosely in the brush body. Weihrauch ('427), as stated above, teaches holding fibers together loosely and applying a process to the ends. It would have been obvious to modify the brush body of '099 so that it loosely holds the fibers as taught by Weihrauch since it considered to be well known in the art to apply a process to fiber ends when they are loosely held in a body.

Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 3-5 of U.S. Patent No. 6702394 in view of Weihrauch ('427)

Although the conflicting claims are not identical, they are not patentably distinct from each other because '394 teaches a bundle of fibers provided in a brush body (lines 1-2 of claim 1 and lines 1-2 of claim 5). The ends of the fibers are subjected to a processing by bringing them into contact with processing equipment (the ends of the fibers are brought into contact with a heating stamp). '394 teaches all the elements of the claim however fails to teach that the fibers are held loosely in the brush body. Weihrauch ('427), as stated above, teaches holding fibers

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together loosely and applying a process to the ends. It would have been obvious to modify the brush body of '394 so that it loosely holds the fibers as taught by Weihrauch since it considered to be well known in the art to apply a process to fiber ends when they are loosely held in a body.

Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 8 of U.S. Patent No. 6702394 in view of Weihrauch ('427).

Although the conflicting claims are not identical, they are not patentably distinct from each other because '394 teaches a bundle of fibers (lines 1-2 of claim 8). The ends of the fibers are subjected to a processing by bringing them into contact with processing equipment (the ends of the fibers are brought into contact with a heating stamp). '394 fails to teach that the fibers are fit within a brush body and that the fibers are loosely held in the brush body. It would have been obvious to place the fibers in a brush body so that the fibers can be used for an intended purpose. If the fibers are to be used for a toothbrush, then the brush body should be a toothbrush. Additionally a brush body will assist in holding the fibers in place when end rounding. Also, Weihrauch ('427), as stated above, teaches holding fibers together loosely and applying a process to the ends. It would have been obvious to modify the brush body of '394 so that it loosely holds the fibers as taught by Weihrauch since it considered to be well known in the art to apply a process to fiber ends when they are loosely held in a body.

Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 and 2 of U.S. Patent No. 6372163 in view of Weihrauch ('427).

Although the conflicting claims are not identical, they are not patentably distinct from each other because '163 teaches a bundle of fibers (lines 1-3 of claims 1 and 2). The ends of the

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fibers are subjected to a processing by bringing them into contact with processing equipment (the ends of the fibers are brought into contact with an end rounding tool). '163 fails to teach that the fibers are fit within a brush body and that the fibers are loosely held in the body. It would have been obvious to place the fibers in a brush body so that the fibers can be used for an intended purpose. If the fibers are to be used for a toothbrush, then the brush body should be a toothbrush. Additionally a brush body will assist in holding the fibers in place when end rounding. Also, Weihrauch ('427), as stated above, teaches holding fibers together loosely and applying a process to the ends. It would have been obvious to modify the brush body of '163 so that it loosely holds the fibers as taught by Weihrauch since it considered to be well known in the art to apply a process to fiber ends when they are loosely held in a body.

Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10989272 in view of Weihrauch ('427).

'272 teaches all the essential elements of the claimed invention including a brush body for holding fiber bundles and end rounding the ends of the fibers however fails to teach that the fibers are held loosely in the brush body. Weihrauch ('427), as stated above, teaches holding fibers together loosely and applying a process to the ends. It would have been obvious to modify the brush body of '548 so that it loosely holds the fibers as taught by Weihrauch since it considered to be well known in the art to apply a process to fiber ends when they are loosely held in a body.

This is a provisional obviousness-type double patenting rejection.

Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 and 2 of U.S. Patent No. 6372163 in view of Weihrauch ('427).

Although the conflicting claims are not identical, they are not patentably distinct from each other because '163 teaches a bundle of fibers (lines 1-3 of claims 1 and 2). The ends of the fibers are subjected to a processing by bringing them into contact with processing equipment (the ends of the fibers are brought into contact with an end rounding tool). '163 fails to teach that the fibers are fit within a brush body and that the fibers are loosely held in the body. It would have been obvious to place the fibers in a brush body so that the fibers can be used for an intended purpose. If the fibers are to be used for a toothbrush, then the brush body should be a toothbrush. Additionally a brush body will assist in holding the fibers in place when end rounding. Also, Weihrauch ('427), as stated above, teaches holding fibers together loosely and applying a process to the ends. It would have been obvious to modify the brush body of '163 so that it loosely holds the fibers as taught by Weihrauch since it considered to be well known in the art to apply a process to fiber ends when they are loosely held in a body.

Response to Arguments

The double patenting rejection with respect to USPN 6779851 has been withdrawn since the claims fail to teach that the fiber ends are subjected to processing equipment. The claims of '851 are directed toward attaching a brush head plate to a brush body and do not claim that the ends of the fibers are subjected to processing equipment.

Applicant's arguments, filed 10/31/06, with respect to Zahoransky et al ('484) as a primary reference, have been fully considered and are persuasive. The rejections with a primary reference of Zahoransky have been withdrawn.

Applicant's arguments filed 10/31/06, with respect to Weihrauch ('427) and Boucherie ('408), have been fully considered but they are not persuasive.

The applicant argues that Weihrauch fails to teach that the fibers are held loosely within the brush body. The applicant points out that there is a clamping device (7), which holds the bristles in position. The examiner is aware that the bristles are clamped however element 10 is what the examiner is calling the brush body. The brush body moves up and down with respect to the bristles as shown by the arrows in figures 6a and 6b, as well as the double arrow 11 in figure 1. Since the brush body is capable of moving up and down, the openings receiving the bundles of bristles must be larger than the diameter of the bundle of bristles so that the brush body moves easily without resistance. Therefore, clearly the bristles are loosely held within the brush body.

The applicant additionally argues that Boucherie fails to teach a processing of the fiber ends. The applicant points out that element 64 is a vibrating plate and does not perform any processing of fiber ends. The applicant is correct in stating that the vibrating plate does not process the fiber ends, however the examiner did not state that the vibrating plate did. The examiner referenced figure 9, which teaches processing means (86, 88; col. 7, lines 15-30) for fiber ends. The processing means include an end rounding operation and a polishing station. These clearly read on the claim limitations of processing equipment and therefore the Boucherie rejection is being maintained.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Karls whose telephone number is 571-272-1268. The examiner can normally be reached on 7:00-4:30 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Slk
1/11/06